	Application No.	Applicant(s)
Office Action Summary	10/077,136	YAMAUCHI ET AL.
	Examiner	Art Unit
	Harun M. Yimam	2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>04 January 2007</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>2,3,8-10,12-14,16,18,20 and 21</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>2,3,8-10,12-14,16,18,20 and 21</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

In view of the Appeal Brief filed on 01/04/2007, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

ANDREW Y. KOENIG
PRIMARY PATENT EXAMINER
Acting SPE - AU 2623

Response to Arguments

1.   Applicant's arguments, see amended Appeal Brief, filed 01/04/07, with respect to the rejections of claims 3, 12 and 13 under 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new grounds of rejection is made in view of a different interpretation of the previously applied reference, Christopoulos (US 2001/0047517), for claim 12 and newly found prior art reference, Guedalia (2003/0106063), to meet the limitations of claims 3 and 13 respectively.

Applicant's arguments, see amended Appeal Brief, filed 01/04/07, with respect to the rejections of claims 2, 8, 10, 14, 18 and 21 under 102(e) and claims 9, 14 and 21 under 103(a) have been fully considered but they are not persuasive.

2.   In response to applicants' argument (page 11, 3rd paragraph) that Christopoulos does not disclose obtaining a measured value of the network transmission rate or controlling the amount of image data to be transmitted in accordance with the measured value, applicants should note that that's exactly what Christopoulos teaches (see paragraphs, 0038-0040). Specifically, Christopoulos discloses that the stored image is transmitted to clients with reduced bandwidth capabilities (paragraph 0039, lines 5-11) upon determining the characteristics of the network (paragraph 0038, lines 4-11).

3.   In response to applicants' argument (page 11, 2nd and 3rd paragraphs) that

Christopoulos does not disclose determining the amount of data to be transmitted and

that the amount of image data to be transmitted is controlled in accordance with a

measured transmission rate of the network, see paragraphs 0039-0041 where

Christopoulos discusses image cropping and region of interest transcoder hints, which

read on the claimed limitations.

4.   In response to applicant's argument (page 15, 4th paragraph) that Ejiri does not

disclose controlling the amount of image data to be received in accordance with the

amount of data stored in an input buffer of a decoder, that the amount of received data

is monitored and a transmission apparatus is instructed to terminate transmission of

said image data when the receiving apparatus receives a predetermined component of

the image data, Applicant should first note that it is the combination of Christopoulos

and Ejiri that teach the limitations of claims 14 and 21 and Ejiri alone. Secondly, Ejiri

explicitly discloses that the buffer occupancy information is inputted to the quantization

controlling block (107 in figure 1), so that each buffer does not overflow or underflow

(paragraph 0040, lines 1-7). Therefore, the quantization controlling block transmits

instruction to terminate the transmission of image data, when the receiving apparatus

has received the predetermined component of image data, so as to prevent buffer

overflow.

Claim Rejections – 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under
section 122(b), by another filed in the United States before the invention by the
applicant for patent or (2) a patent granted on an application for patent by
another filed in the United States before the invention by the applicant for patent,
except that an international application filed under the treaty defined in section
351(a) shall have the effects for purposes of this subsection of an application
filed in the United States only if the international application designated the
United States and was published under Article 21(2) of such treaty in the English
language.

6.   Claims 2, 8, 10, 12, 18 and 20 are rejected under 35 U.S.C. 102(e) as being

anticipated by Christopoulos (US 2001/0047517).

Considering claim 2, Christopoulos discloses an image data transmission

apparatus (paragraph 0035, lines 1-4) comprising: a transmission unit (110 in figure 1)

that transmits image data; and a control unit (125 in figure 1) calculates information

(transcoder hints—paragraph 0035, lines 8-13) concerning the transmission rate on the

basis of a measured value of the transmission rate of a network (network

characteristics—paragraph 0035, lines 8-11, paragraph 0039, lines 5-26, and figure 3)

through which said image data are to be transmitted and controls the amount of image

data to be transmitted in accordance with said information.

Regarding claim 8, Christopoulos discloses a compression unit that compresses said image data to be transmitted; wherein said control unit controls said compression unit to adjust resolution of said image data in accordance with said information (paragraph 0039, paragraph 0040, lines 1-12 and paragraph 0047, lines 1-29).

As for claim 10, Christopoulos discloses a compression unit that compresses said image data to be transmitted; wherein said control unit controls said compression unit to reduce bit numbers dedicated to each pixel of said image data in accordance with said information (paragraph 0039, lines 11-15).

With regards to claim 12, Christopoulos discloses an image data receiving apparatus (see all the elements of figure 1 and paragraph 0035) comprising: a receiving unit (135 in figure 1) that receives image data; and a control unit (a control unit similar to the one on the transmitting side can be used on the receiving side—125 in figure 1 and paragraph 0035, lines 18-20) that calculates said information concerning the transmission rate on the basis of a measured value of the transmission rate (paragraph 0039, lines 5-26) of a network (network characteristics—paragraph 0035, lines 8-11, paragraph 0039, lines 5-26, and figure 3) through which said image data are to be transmitted and controls the amount of image data to be received in accordance with said information (transcoder hints—paragraph 0035, lines 8-13).

As for claim 18, Christopoulos discloses an image transmitting method
(paragraph 0035, lines 1-4) comprising: transmitting image data (paragraph 0039, lines
11-15); calculating information (transcoder hints—paragraph 0035, lines 8-13)
concerning the transmission rate on the basis of a measured value of the transmission
rate of a network (network characteristics—paragraph 0035, lines 8-11, paragraph
0039, lines 5-26, and figure 3) through which said image data are to be transmitted;
and controlling the amount of image data to be transmitted (transcoder 125 in figure 1
uses the transcoder hints to control the image transmission—paragraph 0038, lines 4-
11), in accordance with said information (transcoder hints—paragraph 0035, lines 8-
13).

Regarding claim 20, Christopoulos discloses an image receiving method
comprising: receiving image data (client system, 135 in figure 1, receives the image
data—paragraph 0039, lines 9-15); calculating information (transcoder hints—
paragraph 0035, lines 8-13) concerning the transmission rate on the basis of a
measured value of the transmission rate of a network (network characteristics—
paragraph 0035, lines 8-11, paragraph 0039, lines 5-26, and figure 3) through which
said image data are to be transmitted; and controlling the amount of image data to be
received (a control unit similar to the one on the transmitting side can be used on the
receiving side—125 in figure 1 and paragraph 0035, lines 18-20), in accordance with
said information (transcoder hints—paragraph 0035, lines 8-13).

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed
> or described as set forth in section 102 of this title, if the differences between the
> subject matter sought to be patented and the prior art are such that the subject
> matter as a whole would have been obvious at the time the invention was made
> to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was
> made.

8.   Claims 3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Christopoulos (US 2001/0047517) in view of Guedalia (2003/0106063).

As for claim 3, Christopoulos discloses an image data transmission apparatus

(paragraph 0035, lines 1-4) comprising: a transmission unit (110 in figure 1) that

transmits image data; and a control unit (125 in figure 1) that obtains a measured value

of the transmission rate while transmitting said image data and controls the amount of

image data to be transmitted in accordance with said measured value (paragraph

0039, lines 5-26). Furthermore, Christopoulos discloses that a still image is stored in a

server and compressed at 1 bits per pixel (1 bpp) and a transcoder *decides* that the

image will be recompressed at 0.2 bpp in order to deliver it quickly to a client having a

low bandwidth connection (see paragraph 0014).

However, Christopoulos fails to explicitly disclose that said network transmission rate is obtained *while transmitting* said image data i.e., real-time encoding.

In analogous art, Guedalia discloses real-time encoding (see paragraph 312).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Christopoulos' system to include real-time encoding, as taught by Guedalia, for the benefit of enabling the client to begin viewing an image as soon as the first partial frame data arrives (see paragraph 312).

Regarding claim 13, Christopoulos discloses an image data receiving apparatus (client system—135 in figure 1) comprising: a receiving unit (135 in figure 1) that receives image data; and a control unit (a control unit similar to the one on the transmitting side can be used on the receiving side—125 in figure 1 and paragraph 0035, lines 18-20) that obtains a measured value of the transmission rate while transmitting said image data and controls the amount of image data to be transmitted in accordance with said measured value (paragraph 0039, lines 5-26). Furthermore, Christopoulos discloses that a still image is stored in a server and compressed at 1 bits per pixel (1 bpp) and a transcoder *decides* that the image will be recompressed at 0.2 bpp in order to deliver it quickly to a client having a low bandwidth connection (see paragraph 0014).

However, Christopoulos fails to explicitly disclose that said network transmission

rate is obtained *while transmitting* said image data i.e., real-time encoding.

In analogous art, Guedalia discloses real-time encoding (see paragraph 312).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Christopoulos' system to include real-time encoding, as

taught by Guedalia, for the benefit of enabling the client to begin viewing an image as

soon as the first partial frame data arrives (see paragraph 312).

9.   Claims 4, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Christopoulos (US 2001/0047517) in view of Enari (US 5,847,840).

Regarding claim 4, Christopoulos discloses an image data transmission

apparatus (paragraph 0035, lines 1-4) comprising: a transmission unit (110 in figure 1)

that transmits image data of a motion picture (paragraph 0046, lines 1-5 and figure 5);

and a control unit (125 in figure 1) that controls the amount of image data to be

transmitted in accordance with information (transcoder hints—paragraph 0035, lines 8-

13) concerning a receiving apparatus (client capabilities and user preferences at the

client system—135 in figure 1 and paragraph 0038, lines 4-11 and figure 3) that

receives said image data.

Christopoulos fails to disclose that the control unit controls the amount of image data to be transmitted in accordance with said information without reducing the number of frames included in said motion picture.

In analogous art, Enari discloses that the control unit controls the amount of image data to be transmitted in accordance with said information without reducing the number of frames included in said motion picture (column 7, line 56 – column 8, line 17).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Christopoulos' system to include motion picture transmission without reducing the number of frames included in said motion picture, as taught by Enari, for the benefit of providing the a clear motion video without any jitter.

As for claim 6, it is met by the combination of Christopoulos and Enari. In particular, Christopoulos discloses that the control unit detects performance speed of said receiving apparatus on said image data as said information (Christopoulos— bandwidth capabilities of the client system—paragraph 0040, lines 9-12).

With regards to claim 7, it is met by the combination of Christopoulos and Enari. In particular, Christopoulos discloses that the control unit detects the specifications of a

display unit of said receiving apparatus as said information (Christopoulos—display

capabilities of the client system—paragraph 0040, lines 9-12).

10.   Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Christopoulos (US 2001/0047517) in view of Ejiri (US 2001/0003532).

Considering claim 9, Christopoulos discloses a compression unit that

compresses said image data to be transmitted (paragraph 0051, lines 5-13).

Christopoulos further discloses utilizing a region of interest transcoding means to rule

out less important background regions of an image (paragraph 0040, lines 1-8 and

paragraph 0045, lines 9-25).

Christopoulos fails to explicitly disclose the extraction of low frequency

components from said image data in accordance with said information.

In analogous art, Ejiri discloses extracting low frequency components from said

image data (paragraph 0024, lines 1-4).

It would have been obvious to one of ordinary skill in the art to at the time the

invention was made to modify Christopoulos' system to include the extraction of low

frequency components from said image data, as taught by Ejiri, for the benefit of

converting the image data into a coefficient suitable for coding by exploiting a low

frequency spectrum concentration characteristic of an image (paragraph 0024, lines 1-

4).

11.   Claims 14, 16 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Christopoulos (US 2001/0047517) in view of Ejiri (US 2001/0003532).

As for claim 14, Christopoulos discloses an image data receiving apparatus

comprising: a receiving unit (135 in figure 1) that receives image data; a decoding unit

that performs data processing on the received data (paragraph 0042, lines 11-15 and

paragraph 0043, lines 1-14); and a control unit (a control unit similar to the one on the

transmitting side can be used on the receiving side—125 in figure 1 and paragraph

0035, lines 18-20) that controls the amount of image data to be received in accordance

with information (transcoder hints—paragraph 0035, lines 8-13). Christopoulos further

discloses that the received data is controlled in accordance with information concerning

the client capabilities (i.e., depending on the available storage space of the server 110,

which can be a part of a client system—paragraph 0035, lines 11-20).

Christopoulos fails to explicitly disclose controlling the amount of image data to

be received in accordance with information concerning the amount of data stored in a

buffer of the decoding unit.

In analogous art, Ejiri discloses that the amount of received data is controlled in accordance with information concerning the amount of data stored in a buffer (paragraph 0040, lines 1-7).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Christopoulos' system to include controlling the received data is in accordance with information concerning the amount of data stored in a buffer, as taught by Ejiri, for the benefit of controlling data overflow or underflow.

Regarding claim 16, Christopoulos discloses an image data receiving apparatus (client system—135 in figure 1) comprising: a receiving unit (135 in figure 1) that receives image data; and a control unit (a control unit similar to the one on the transmitting side can be used on the receiving side—125 in figure 1 and paragraph 0035, lines 18-20) that controls the amount of image data to be received in accordance with information (transcoder hints—paragraph 0035, lines 8-13) concerning the transmission rate of a network (network characteristics—paragraph 0035, lines 8-11, paragraph 0039, lines 5-26, and figure 3) through which said image data are to be transmitted.

Christopoulos fails to disclose that the said control unit monitors the amount of received data and instructs a transmission apparatus to terminate transmission of said

image data when the receiving apparatus receives a predetermined component of the

image data.

In analogous art, Ejiri discloses that the amount of received data is monitored

and a transmission apparatus is instructed to terminate transmission of said image

data when the receiving apparatus receives a predetermined component of the image

data (paragraph 0040, lines 1-7).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Christopoulos' system to include regulation of data

transmission, as taught by Ejiri, for the benefit of controlling data overflow or underflow.

Considering claim 21, Christopoulos discloses an image receiving method

comprising: receiving image data (client system, 135 in figure 1, receives the image

data—paragraph 0039, lines 9-15); performing data processing on the received image

data for displaying said image data (paragraph 0042, lines 11-15 and paragraph 0043,

lines 1-14); and controlling the amount of image data to be received (a control unit

similar to the one on the transmitting side can be used on the receiving side—125 in

figure 1 and paragraph 0035, lines 18-20). Christopoulos further discloses that the

received data is controlled in accordance with information concerning the client

capabilities (i.e., depending on the available storage space of the server 110, which can

be a part of a client system—paragraph 0035, lines 11-20).

Christopoulos fails to explicitly disclose controlling the amount of image data to

be received in accordance with information concerning the amount of data stored in a

buffer of the decoding unit.

In analogous art, Ejiri discloses that the amount of received data is controlled in

accordance with information concerning the amount of data stored in a buffer

(paragraph 0040, lines 1-7).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Christopoulos' system to include controlling the received

data is in accordance with information concerning the amount of data stored in a buffer,

as taught by Ejiri, for the benefit of controlling data overflow or underflow.

12.   Claims 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Christopoulos (US 2001/0047517) in view of Enari (US 5,847,840).

Considering claim 17, Christopoulos discloses an image data receiving

apparatus (client system—135 in figure 1) comprising: a receiving unit (135 in figure 1)

that receives image data; and a control unit (a control unit similar to the one on the

transmitting side can be used on the receiving side—125 in figure 1 and paragraph

0035, lines 18-20) that controls the amount of image data to be received in accordance

with information (transcoder hints—paragraph 0035, lines 8-13) concerning the

transmission rate of a network (network characteristics—paragraph 0035, lines 8-11,

paragraph 0039, lines 5-26, and figure 3) through which said image data are to be

transmitted. Christopoulos further discloses that the said image data is a motion picture

(paragraph 0046, lines 1-5 and figure 5).

Christopoulos fails to disclose that the control unit controls the amount of image

data to be transmitted in accordance with said information without reducing the number

of frames included in said motion picture.

In analogous art, Enari discloses that the control unit controls the amount of

image data to be transmitted in accordance with said information without reducing the

number of frames included in said motion picture (column 7, line 56 – column 8, line

17).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Christopoulos' system to include motion picture

transmission without reducing the number of frames included in said motion picture, as

taught by Enari, for the benefit of providing the a clear motion video without any jitter.

With regards to claim 19, Christopoulos discloses an image transmitting method

(paragraph 0035, lines 1-4) comprising: transmitting image data (paragraph 0039, lines

11-15) of a motion picture (paragraph 0046, lines 1-5 and figure 5); and controlling the

amount of image data to be transmitted (transcoder 125 in figure 1 uses the transcoder

hints to control the image transmission—paragraph 0038, lines 4-11) in accordance with

information (transcoder hints—paragraph 0035, lines 8-13) concerning a receiving

apparatus (client capabilities and user preferences at the client system—135 in figure 1

and paragraph 0038, lines 4-11 and figure 3) that receives said image data.

Christopoulos fails to disclose that the control unit controls the amount of image

data to be transmitted in accordance with said information without reducing the number

of frames included in said motion picture.

In analogous art, Enari discloses that the control unit controls the amount of

image data to be transmitted in accordance with said information without reducing the

number of frames included in said motion picture (column 7, line 56 – column 8, line

17).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Christopoulos' system to include motion picture

transmission without reducing the number of frames included in said motion picture, as

taught by Enari, for the benefit of providing the a clear motion video without any jitter.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harun M. Yimam whose telephone number is 571-272-7260. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HMY